

The rejection of Claim 17 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. More specifically, Claim 17 has been amended at lines 2 and 3 to recite "a leading airfoil vane and a trailing airfoil vane." Accordingly, for at least the reasons set forth above, Applicants request the objection to Claim 17 be withdrawn.

The rejection of Claims 1-3, 5, 13-16, and 19 under 35 U.S.C. § 103 as being unpatentable over Emery et al. (U.S. Pat. No. 6,318,963) in view of Durgin et al. (U.S. Pat. No. 4,297,077) is respectfully traversed.

Claim 6 was indicated in the Office Action as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6 was cancelled and independent Claim 1 was rewritten to include all of the recitations from Claim 6. Accordingly, Claim 1 is submitted to be in condition for allowance and as such, is submitted as patentable over Emery et al. in view of Durgin et al.

Claims 2-5 depend from independent Claim 1. When the recitations of Claims 2-5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 likewise are patentable over Emery et al. in view of Durgin et al.

Claim 18 was indicated in the Office Action as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 18 was cancelled and independent Claim 13 was rewritten to include all of the recitations from Claim 18. Accordingly, Claim 13 is submitted to be in condition for allowance and as such, is submitted as patentable over Emery et al. in view of Durgin et al.

Claims 14-17 and 19 depend from independent Claim 13. When the recitations of Claims 14-17 and 19 are considered in combination with the recitations of Claim 13, Applicants submit that dependent Claims 14-17 and 19 likewise are patentable over Emery et al. in view of Durgin et al.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-3, 5, 13-16, and 19 be withdrawn.

Claims 7-12 are allowable.

Claims 4, 6, and 18 were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 6

was cancelled and independent Claim 1 was rewritten to include all of the recitations from Claim 6. Accordingly, Claim 1 is submitted to be in condition for allowance.

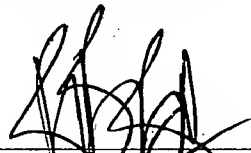
Claim 4 depends from independent Claim 1. When the recitations of Claim 4 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 4 likewise is in condition for allowance.

Claim 18 was cancelled and independent Claim 13 was rewritten to include all of the recitations from Claim 18. Accordingly, Claim 13 is submitted to be in condition for allowance.

Claim 17 was indicated as being allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph, and if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 17 has been amended to overcome the Section 112 rejections. Furthermore, Claim 17 depends from Claim 13 which is submitted to be in condition for allowance. When the recitations of Claim 17 are considered in combination with the recitations of Claim 13, Applicants submit that dependent Claim 17 likewise is in condition for allowance.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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13DV-14224  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Powis, et al.

Serial No.: 09/998,947

Filed: November 15, 2001

For: METHODS AND APPARATUS FOR  
COOLING GAS TURBINE NOZZLES

Art Unit: 3745

Examiner: Nguyen, N.

SUBMISSION OF MARKED UP CLAIMS

Commissioner for Patents  
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Washington, D.C. 20231

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Submitted herewith are marked up Claims in accordance with 37 C.F.R. Section 1.121(c)(1)(ii):

IN THE CLAIMS

Please cancel Claims 6 and 18.

1. (once amended) A method for assembling a turbine nozzle for a gas turbine engine, said method comprising:

providing a hollow doublet including a leading airfoil vane and a trailing airfoil vane coupled by at least one platform, wherein each airfoil vane includes a first sidewall and a second sidewall that extend between a respective leading and trailing edge; [and]

inserting an insert into at least one of the airfoil vanes, wherein the insert includes a first sidewall including a first plurality of cooling openings that extending therethrough, and a second sidewall including a second plurality of cooling openings extending therethrough, and wherein the first plurality of cooling openings facilitate cooling the airfoil more than the second plurality of cooling openings;

inserting a second insert into the remaining airfoil vane, wherein the first and second inserts are non-identical.

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13. (once amended) A turbine nozzle for a gas turbine engine, said nozzle comprising:

a pair of identical airfoil vanes coupled by at least one platform that is formed integrally with said airfoil vanes, each said airfoil vane comprising a first sidewall and a second sidewall connected at a leading edge and a trailing edge to define a cavity therebetween; and

at least one insert configured to be inserted within said airfoil vane cavity and comprising a first sidewall and a second sidewall, said insert first sidewall comprising a first plurality of openings extending therethrough for directing cooling air towards at least one of said airfoil vane first and second sidewalls, said insert second sidewall comprising a second plurality of openings extending therethrough for directing cooling air towards at least one of said airfoil vane first and second sidewalls, said first plurality of openings configured to facilitate more vane sidewall cooling than said second plurality of openings, said first plurality of cooling openings is greater than said insert second plurality of cooling openings.

17. (once amended) A nozzle in accordance with Claim 14 wherein said pair of airfoil vanes further comprise [an upstream] a leading airfoil vane and a [downstream] trailing airfoil vane, [said downstream airfoil vane downstream from said upstream airfoil vane,] said at least one insert further comprises a first insert installed within said leading airfoil vane, and a non-identical second insert installed within said trailing airfoil vane, said inserts configured to facilitate cooling said trailing airfoil vane more than said leading airfoil vane.

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